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# NASA Policy Directive

**NPD 8610.24C**

Effective Date: May 12, 2005

Expiration Date: May 12, 2015

**COMPLIANCE IS MANDATORY**[Printable Format \(PDF\)](#)

Request Notification of Change

(NASA Only)

## **Subject: Launch Services Program Pre-Launch Readiness Reviews (Revalidated May 12, 2010)**

**Responsible Office: Space Operations Mission Directorate**

### **1. POLICY**

a. NASA is accountable for program mission success, which includes launch success. In order to meet these responsibilities for launch success when NASA missions utilize launch services or Department of Defense- provided launch services, NASA management assesses and certifies the readiness of the launch vehicle, payload support hardware/software, and launch site infrastructure preparatory to launch through a structured prelaunch review process. NASA seeks to encourage broad participation in the prelaunch review process to maximize mission success. This directive standardizes the Launch Services Program (LSP) prelaunch review process for all NASA acquired/managed launch services missions deemed necessary to fulfill Space Operations Mission Directorate (SOMD) responsibilities for assuring launch readiness certification for NASA payloads/missions and fulfills the requirements of NPR 7120.5D for the launch phase of the mission.

b. The following LSP prelaunch reviews shall be conducted for each NASA-owned or NASA-sponsored mission for which NASA has acquired and/or manages the launch services:

(1) Launch Vehicle Readiness Review (LVRR): The LVRR is held to certify the readiness to proceed with spacecraft/launch vehicle integration activities and is typically held prior to the spacecraft readiness review, which is called the Mission Readiness Review (MRR) or the spacecraft Flight Readiness Review (SC-FRR). The LVRR is chaired by the LSP Manager who reviews any launch vehicle anomalies/issues associated with the mission identified.

(2) Flight Readiness Review (FRR): The FRR is held to update the mission status, close out actions from the previously held LVRR and Customer MRR (or the SC-FRR), and certify the readiness to proceed with initiation of the launch countdown. The FRR is chaired by the NASA Launch Manager (NLM) and is held approximately 3 days before

launch at the launch site.

(3) Launch Readiness Review (LRR): The LRR is held to update the mission status, close out actions from the previously held FRR, authorize approval to proceed into launch countdown, and sign the Certification of Flight Readiness (COFR). The LRR is held at the launch site no later than 1 day before launch. The LRR is chaired by the SOMD Assistant Associate Administrator (AAA) for Launch Services or may be delegated to the LSP Manager, as appropriate. The COFR is signed at the conclusion of the LRR.

(4) Final Commit-to-Launch Poll: The Final Commit-to-Launch Poll is conducted to confirm NASA readiness to launch. This poll is conducted by the NLM approximately 5-minutes before launch. A "Go" statement is required from all parties polled to enter into the terminal count. Mandatory launch constraints cannot be waived after start of the terminal launch countdown.

c. The LSP and project offices may conduct other reviews as appropriate and necessary in preparation for launch. These may include, but are not limited to, Mission Requirements Reviews, Critical Design Reviews, Design Certification Reviews, Preship Reviews, Ground Operations Reviews, Project Manager's Reviews, and other appropriate safety reviews.

d. The mission spacecraft will typically undergo a parallel prelaunch review process that includes the spacecraft and ground system elements as well as status of the launch service. The Spacecraft MRR (or SC-FRR) is typically held after the LVRR.

## **2. APPLICABILITY**

This policy applies to NASA Headquarters, NASA Centers including Component Facilities, Technical and Service Support Centers and JPL.

## **3. AUTHORITY**

42 U.S.C. 2473(c)(1), Section 203(c)(1) of the National Aeronautics and Space Act of 1958, as amended.

## **4. APPLICABLE DOCUMENTS**

- a. NPR 7120.5 "NASA Space Flight Program and Project Management Requirements."
- b. NPR 8621.1, "NASA Procedural Requirements for Mishap Reporting, Investigating, and Recordkeeping."

## **5. RESPONSIBILITY**

- a. The Associate Administrator for SOMD is responsible for certification of launch vehicle readiness for NASA missions. The AAA for LSP is delegated responsibility for representing the SOMD at any pre-launch LSP reviews and chairs the LRR.
- b. The LSP Manager, reporting to the LSP AAA, SOMD is responsible for signing the COFR for each NASA LSP managed launch service. The LSP Manager is also responsible for the following:

- (1) Coordinating participation of the spacecraft customer, launch services program, safety and mission assurance (SMA), launch service contractor representatives, and other organizations within NASA, as appropriate, at the LVRR.
- (2) Establishing a NASA Advisory Team to provide an independent assessment of the launch countdown process and launch readiness for each launch to the NLM. This team shall be comprised of senior NASA Headquarters and LSP personnel, the Director of Kennedy Space Center (or his/her designee), and other NASA senior management, as appropriate, with experience in NASA launch countdown process.
- c. The NASA Spacecraft Mission Director is responsible for coordinating participation of spacecraft, payload instruments, and ground operations at the MRR (SC-FRR) and for providing the spacecraft "Go/No-Go" to the NLM for the Final Commit-to-Launch Poll.
- d. The NLM is responsible for the following:
  - (1) Coordinating participation of the spacecraft customer, LSP and contractors, range safety, weather, tracking and data, Safety & Mission Assurance, public affairs representatives, and other organizations within NASA, as appropriate, at the FRR and LRR.
  - (2) Assuring all representatives sign the COFR at the conclusion of the LRR. Signatories to the COFR shall include the NASA Spacecraft Mission Director, the NLM, the Launch Services Contractor, the NASA SMA representative, and a range official.
  - (3) Developing and coordinating a premishap plan previously called a Contingency Action Plan (CAP) prior to the LRR, which addresses the immediate launch-site reaction plan associated with a launch vehicle anomaly and requisite data impoundment process. The plan is coordinated with the NASA Spacecraft Mission Director in accordance with NPR 8621.1.
  - (4) Conducting the Final Commit-to-Launch Poll. The NLM provides the final launch commitment to the launch services contractor Launch Director. This final poll shall include the NASA Spacecraft Mission Director, NASA Advisory Team, NASA SMA representative, and other NASA organizations involved in the countdown.

## **6. DELEGATION OF AUTHORITY**

None.

## **7. MEASUREMENTS/VERIFICATION**

- a. A record of all LSP prelaunch reviews, action items disposition, and the original COFR will be maintained by the LSP.
- b. The LSP will document lessons learned and corrective actions taken on the launch process after each mission.

## **8. CANCELLATION**

NPD 8610.24B, "Expendable Launch Vehicle (ELV) Launch Services Pre-launch Reviews," dated May 12, 2005.

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**/s/ Frederick D. Gregory**  
**Acting Administrator**

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## **ATTACHMENT A: (TEXT)**

### **REFERENCES:**

A.1 42 U.S.C. Section 14701, Section 2 of the "Commercial Space Act of 1998" (P.L. 105-303), as amended.

A.2 42 U.S.C. Section 14731, Section 201 of the "Commercial Space Act of 1998" (P.L. 105-303), as amended.

A.3 42 U.S.C. Section 14732, Section 202 of the "Commercial Space Act of 1998" (P.L. 105-303), as amended.

A.4 NPD 8610.23, "Technical Oversight of Expendable Launch Vehicle (ELV) Launch Services."

A.5 NPD 8610.7, "Launch Services Risk Mitigation Policy for NASA-Owned, NASA-Sponsored Payloads."

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